

Stevens Institute of Technology

NJ Higher Education Sector: Independent College or University

CIESE - Elizabeth Public Schools

Type of Partnership: Professional Development for Teachers

Year Began: 1993

CONTACT INFORMATION

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Partners: Elizabeth Public Schools, Stevens Institute of Technology's Center for Innovation in Engineering and Science Education, New Jersey Department of Education, New Jersey Commission on Higher Education, National Science Foundation

DESCRIPTION

In 1993, the Center for Innovation in Engineering and Science Education at Stevens Institute of Technology began a partnership with Elizabeth Public Schools in an NSF-sponsored Mentor-Teacher program geared at improving mathematics with technology. The partnership continued with collaboration in CIESE's K-12 Partnership Program and the NJ Commission on Higher Education sponsored High Technology Workforce program. Over the last several years, CIESE has provided intensive in-district mentoring for middle school mathematics teachers and is now embarking on an N.J. Department of Education MATRIX (Math Achievement to Realize Individual eXcellence) grant designed to improve sixth, seventh, and eighth grade student achievement of the Core Curriculum Content Standards in Mathematics by enabling a group of teachers at each grade level to effectively integrate technology into teaching and learning. The program provides full-day professional development sessions, in-school visitations, and summer workshops.

CIESE - Hoboken Public Schools

Type of Partnership: Professional Development for Teachers

Year Began: 1988

CONTACT INFORMATION

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Partners: Hoboken Public Schools, Stevens Institute of Technology's Center for Innovation in Engineering and Science Education, IBM Foundation, New Jersey Department of Education, New Jersey Commission on Higher Education, National Science Foundation

DESCRIPTION

Hoboken Public Schools and the Center for Innovation in Engineering and Science Education began its long partnership in 1988 with a technology in mathematics program sponsored by the N.J. Department of Education and the N.J. Commission on Higher Education. CIESE and Hoboken continued to work together over the years with teacher participation in workshops offered through the NSF Networking Infrastructure for Education Program, K-12 Partnership Program, TIME Program, High Technology Workforce Program, and more recently with Stevens' supported Technology-in-Education Summer Institutes. In addition, CIESE is providing in-district support to Hoboken through their N.J. Department of Education STAR-W grant. The program provides full-day professional development sessions, in-school visitations, and summer workshops.

Stevens Institute of Technology

NJ Higher Education Sector: Independent College or University

CIESE- Newark Public Schools

Type of Partnership: Professional Development for Teachers

Year Began: 1988

CONTACT INFORMATION

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Partners: Newark School District, Stevens Institute of Technology's Center for Innovation in Engineering and Science Education, New Jersey Department of Education, New Jersey Commission on Higher Education, National Science Foundation

DESCRIPTION

Newark Public Schools was one of CIESE's (Center for Innovation in Engineering and Science Education) first partners when in 1988-1990 ten teachers from the district participated in a state sponsored mathematics and technology program encompassing monthly workshops and an intensive two-week summer workshop at Stevens Institute. During the ensuing years, Newark teachers participated in a multitude of technology in mathematics/science workshops offered through CIESE's NSF-sponsored Networking Infrastructure for Education program and K-12 Partnership Program. In 1999 Newark became the focus of a N.J. Commission on Higher Education High Technology Workforce program. This three-year effort was an intensive teacher professional development collaboration. As a result, Newark has seen dramatic increases in students' science achievement scores--averaging 10% growth sustained over three years--in those schools that worked with Stevens in this program. In 2004, science scores increased by almost 10% district-wide and by 20% in the participating schools. This demonstrates the value and impact of the NJ CHE grant. As teachers developed their computer skills and their ability to integrate the real time projects into their teaching, the impact over time is valuable. Additionally, in 2002/2003 Newark sponsored an additional program for 10 low performing schools focusing on the NJ GEPA topics. Since then, CIESE and Newark continue to seek out new opportunities to work together to help improve education in the district. The program provides full-day professional development sessions, in-school visitations, and summer workshops.

CIESE - Passaic Public Schools

Type of Partnership: Professional Development for Teachers

Year Began: 1997

CONTACT INFORMATION

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Partners: Passaic Public Schools, Stevens Institute of Technology's Center for Innovation in Engineering and Science Education, AT&T Foundation, New Jersey Department of Education, National Science Foundation, New Jersey Commission on Higher Education

DESCRIPTION

The partnership between the Passaic Public Schools and the Center for Innovation in Engineering and Science Education at Stevens Institute began in 1997 when Passaic teachers participated in an AT&T Foundation-sponsored ScienceLINK program, a three-year professional development program for middle school teachers promoting standards-based Internet-supported science curriculum resources which included ten full-day workshops during the school year and 2-week summer institutes. During the ensuing years, Passaic teachers participated in a multitude of technology in mathematics/science workshops offered through CIESE's NSF-sponsored Networking Infrastructure for Education program, K-12 Partnership Program and TIME (Technology in Mathematics Education) program. In addition, Passaic high school teachers participated in the N.J. CHE-sponsored High Technology Workforce Grant in 2002-2003. More recently, the district and Stevens have embarked on two N.J. Department of Education initiatives: the P-12 Higher Education/Public School Partnership Program and the MATRIX Program. Both are expected to start in November 2005. The program provides full-day professional development sessions, in-school visitations, and summer workshops.

Stevens Institute of Technology

NJ Higher Education Sector: Independent College or University

STEP Upward Bound Project

Type of Partnership: Precollege Program

Year Began: 1968

Participants Served: 66

CONTACT INFORMATION

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Partners: Newark, East Orange, Orange, Hoboken, Jersey City and Union City School Districts

DESCRIPTION

The Upward Bound Project at Stevens Institute of Technology is a science, mathematics, and engineering program which generates in high school students the skills and the motivation necessary to successfully complete a high school education and then pursue and complete a post secondary baccalaureate degree in science, mathematics and engineering. The Upward Bound Project provides services to low-income and first- generation high school students to enhance and develop their learning skills, which assure students' success in science, mathematics, and engineering curricula at all educational levels and careers.

The goal of the Upward Bound Project is to introduce participants who are underrepresented in the professions of science, mathematics, and engineering to an intense academic curriculum, exposure trips in science and engineering, cultural activities, and college field trips.
